

AMENDMENTS TO THE CLAIMS

1-55 (Previously Canceled)

56. (Currently Amended) A method of authorizing a portable communication device to access a network resource managing access to network resources, the method being performed at by a network management system in communication with the a portable communication device via a network, the method comprising:

receiving, at a communications port of a network management system from a portable communication device via a network, a first request to access a network resource located at an external server, the first request comprising one or more network packets, which include header and body data, and being configured with network settings that do not correspond to the network attributes including a source address, a checksum, and a port number, wherein the checksum is calculated based at least in part on header and body data of one or more network packets;

determining, on using a processor, whether to provide the portable communication device is authorized to with access to the requested network resource, the determination being based at least in part on comparing an one or more of the attributes included in the first request to a user profile database; and

redirecting, upon determining that the portable communication device is not authorized to be provided with access to the requested network resource, redirecting the portable network communication device to an authentication system, by performing a method comprising:

~~storing the request to access the network resource;~~
~~communicating a modified request to a redirection server, the modified request being based upon the request to access the network resource;~~

receiving, from the redirection server, a browser redirect message redirection data comprising a resource locator identification data that identifies the authentication system, the browser redirect message redirection data configured to cause the portable communication device to be redirected to the authentication system; and

sending, from the communications port of the network management system to the portable communication device, a ~~modified browser redirect message based upon the browser redirect message redirection data~~, the ~~modified~~ browser redirect message configured to indicate that it was sent by the network resource and comprises attributes in which at least one of a source address, a checksum, and a port number differs from those attributes of the first request;

whereby the portable communication device is enabled, by being redirected to the authentication system, to submit provide authentication-related information so that the portable communication system may be authorized to provided access to the requested network resource.

57. **(Currently Amended)** The method of Claim 56, further comprising updating the user profile database upon determining that the portable communication device is entitled to be provided with access to the requested network resource.

58. **(Currently Amended)** The method of Claim 56, further comprising maintaining in the user profile database a historical log of the portable communication device's access to the ~~destination network~~ network resource.

59. **(Currently Amended)** The method of Claim 56, wherein the first request is an HTTP request.

60. **(Currently Amended)** The method of Claim 56, wherein determining whether to authorize provide the portable communication device ~~to with~~ access to the requested network resource further comprises denying the portable communication device access where the user profile database indicates that the portable communication device may not access the ~~destination network~~ network resource.

61. **(Currently Amended)** The method of Claim 56, wherein the attribute included in the request is determination of whether to provide the portable communication device with access to the requested network is based at least in part on one of a port, circuit ID, VLAN ID or MAC address.

62. **(Previously Presented)** The method of Claim 56, further comprising:
receiving, from the portable communication device, a second request to
access a second network resource; and
determining that the portable communication device is authorized to
access the second network resource, based at least upon a MAC address
included in the second request.

63. **(Currently Amended)** A network management system configured to manage authorization of a portable communication device to access to a network resource, the system comprising:

a network communications interface configured to receive, from a portable communication device via a network, a first request to access a network resource located external to the network management system, the first request comprising a resource locator that identifies the network resource, the first request being configured with network settings that do not correspond to the network attributes including a source address, a checksum, and a port number, wherein the checksum allows for verifying correct data transmission; and

a processor configured to determine whether to allow the portable communication device is authorized to access the requested network resource, the determination being based at least in part on comparing an attribute one or more of the attributes included in the first request to a user profile database;

the processor further configured to redirect the portable communication device to an authentication system, upon determining that not to allow the portable communication device is not authorized to access the requested network resource, the portable network device to an authentication system, by performing a method comprising, by:

storing the request to access the network resource;

communicating a modified request to a redirection server, the modified request being based upon the request to access the network resource;

receiving, from the redirection server, a browser redirect message redirection data comprising a second resource locator resource identification data that identifies the authentication system, the browser redirect message redirection data configured to cause the portable communication device to be redirected to the authentication system; and

sending, to the portable communication device, a modified browser redirect message based upon the browser redirect message redirection data, the modified browser redirect message indicating it originated from

the network resource and comprises attributes in which at least one of a source address, a checksum, and a port number differs from those attributes of the first request;

whereby the portable communication device is enabled, by being redirected to the authentication system, to submit authentication-related information so that the portable communication system may be authorized allowed to access the requested network resource.

64. **(Currently Amended)** The network management system of Claim 63, wherein the processor is further configured to maintain, in the user profile database, a historical log of the portable communication device's access to the ~~destination network network resource~~.

65. **(Currently Amended)** The network management system of Claim 63, wherein the first request is an HTTP request.

66. **(Currently Amended)** The network management system of Claim 63, wherein determining whether to authorize allow the portable communication device to access the ~~requested~~ network resource further comprises denying the portable communication device access where the user profile database indicates that the portable communication device may not access the ~~destination network~~ network resource.

67. **(Currently Amended)** The network management system of Claim 63, wherein the attribute included in the request is determination of whether to allow the portable communication device to access the network resource is based at least in part on one of a port, circuit ID, VLAN ID or MAC address.

68. **(Previously Presented)** The network management system of Claim 63, wherein the network interface is further configured to receive, from the portable communication device, a second request to access a second network resource, and wherein the processor is further configured to determine that the portable communication device is authorized to access the second network resource, based at least upon a MAC address included in the second request.

69. **(Currently Amended)** The network management system of Claim 63, wherein the user profile database further stores information relating to an authorized a

time period associated with the portable communication device, and wherein the determination of whether to allow the portable communication device ~~is authorized~~ to access the ~~requested~~ network resource is further based on an amount of time that has elapsed in relation to the ~~authorized~~ time period stored in the user profile database.

70. **(Currently Amended)** The network management system of Claim 63, wherein the attribute included in the first request comprises a link-layer header of a network packet, and wherein the determination of whether to allow the portable communication device ~~is authorized~~ to access the ~~requested~~ network resource is based both on the link-layer header of the network packet and on identification information provided automatically by a browser of the portable communication device.

71-76. **(Canceled)**

77. **(Currently Amended)** A method of accessing a network resource by a portable communication device, the method performed ~~at~~by a network management system in communication with the portable communication device, the method comprising:

receiving, at a communications port of a network management system from a portable communication device, a first request to access a network resource, the first request comprising one or more network packets, the first request further comprising attributes including a source address, a checksum, and a port number, wherein the checksum allows for verifying correct data transmission;

determining, ~~on~~using one or more processors, whether ~~to provide~~ the portable communication device ~~is authorized to~~with access ~~to~~ the requested network resource, the determination being based at least in part on comparing ~~an attribute~~one or more of the attributes included in the first request to a user profile database; and

~~redirecting, upon determining that the portable communication device is not authorized to access the requested network resource, the portable network device to an authentication system, by performing a method comprising:~~

~~communicating a modified request to a redirection server, the modified request being based upon the request to access the network resource;~~

~~receiving, from the a redirection server, a browser redirect message redirection data comprising a resource locator identification data that identifies the an authentication system, the browser redirect message redirection data configured to cause the portable communication device to be redirected to the authentication system; and~~

~~sending, from the communications port of the network management system~~ to the portable communication device, a modified browser redirect message based upon the ~~browser redirect message redirection data~~, the modified browser redirect message configured to indicate that it was sent by the network resource, the browser redirect message being sent upon a determination not to provide the portable communication device with access to

the network resource, the browser redirect message comprising attributes in which at least one of a source address, a checksum, and a port number differs from those attributes of the first request;

whereby the portable communication device is enabled, by being redirected to the authentication system, to submit-transmit authentication-related information so that the portable communication system may be authorized-to-provided access to the requested network resource.

78. **(Currently Amended)** The method of Claim 77, further comprising updating the user profile database upon determining that to provide the portable communication device is entitled to-with access to the requested network resource.

79. **(Currently Amended)** The method of Claim 77, further comprising maintaining in the user profile database a historical log of the portable communication device's access to the destination network network resource.

80. **(Currently Amended)** The method of Claim 77, wherein the first request is an HTTP request.

81. **(Currently Amended)** The method of Claim 77, wherein determining whether to authorize-provide the portable communication device to-with access to the requested network resource further comprises denying the portable communication device access where the user profile database indicates that the portable communication device may not access the destination network network resource.

82. **(Currently Amended)** The method of Claim 77, wherein the attribute included in the request is determination of whether to provide the portable communication device with access to the network resource is one of a port, circuit ID, VLAN ID or MAC address.

83. **(Currently Amended)** The method of Claim 77, further comprising:
receiving, from the portable communication device, a second request to access a second network resource; and
determining that to provide the portable communication device is authorized-to-with access to the second network resource, based at least upon a MAC address included in the second request.

84-86. **(Canceled)**

87. **(Currently Amended)** A network management system configured to manage access of a portable communication device to a network resource, the system comprising:

a network communications interface configured to receive, from a portable communication device, a first request to access a network resource, the request comprising one or more network packets, the first request further comprising a source address, a checksum allowing for verification of correct data transmission, a port number, and a resource locator that identifies the network resource; and

one or more processors configured to determine whether to allow the portable communication device ~~is authorized~~ to access the requested network resource, the determination being based at least in part on comparing an attribute included in the first request to a user profile database;

the one or more processors further configured to redirect, upon determining that the portable communication device is not authorized to access the requested network resource, the portable network communication device to an authentication system, by performing a method comprising:

~~communicating a modified request to a redirection server, the modified request being based upon the request to access the network resource;~~

~~receiving, from the a redirection server, a browser redirect message redirection data comprising a second resource locator identification data that identifies the authentication system, the browser redirect message redirection data configured to cause the portable communication device to be redirected to the authentication system; and~~

~~sending, from the network communications interface of the network management system to the portable communication device, a modified browser redirect message based upon the browser redirect message redirection data, the modified browser redirect message indicating it originated from the network resource, the browser redirect message being sent as a result of the determination not to allow the portable~~

communication device to access the network resource, the browser redirect message having at least one of a source address, a checksum, and a port number that differs from those attributes of the first request;
whereby the portable communication device is enabled, by being redirected to the authentication system, to submittransmit authentication-related information so that the portable communication system may be authorizedallowed to access the requestednetwork resource.

88. **(Currently Amended)** The network management system of Claim 87, wherein the processor is further configured to maintain, in the user profile database, a historical log of the portable communication device's access to the destinationnetwork network resource.

89. **(Currently Amended)** The network management system of Claim 87, wherein the first request is an HTTP request.

90. **(Currently Amended)** The network management system of Claim 87, wherein determining whether to authorizeallow the portable communication device to access the requestednetwork resource further comprises denying the portable communication device access where the user profile database indicates that the portable communication device may not access the destinationnetwork network resource.

91. **(Currently Amended)** The network management system of Claim 87, wherein the attribute included in the request is determination of whether to allow the portable communication device to access the network resource is based at least in part on one of a port, circuit ID, VLAN ID or MAC address.

92. **(Currently Amended)** The network management system of Claim 87, wherein the network interface is further configured to receive, from the portable communication device, a second request to access a second network resource, and wherein the processor is further configured to determine that the portable communication device is authorizedallowed to access the second network resource, based at least upon a MAC address included in the second request.

93. **(Currently Amended)** The system of Claim 87, wherein the user profile database further stores information relating to ~~an authorized~~a time period associated with the portable communication device, and wherein the determination of whether the portable communication device is ~~authorized~~allowed to access the ~~requested~~ network resource is further based on an amount of time that has elapsed in relation to the ~~authorized~~ time period stored in the user profile database.

94. **(Currently Amended)** The system of Claim 87, wherein the ~~attribute included in the~~ first request comprises a link-layer header of a network packet, and wherein the determination of whether the portable communication device is ~~authorized~~allowed to access the ~~requested~~ network resource is based both on the link-layer header of the network packet and on identification information provided automatically by a browser of the portable communication device.

95. **(Canceled)**

96. **(Currently Amended)** The system of Claim 95~~_87~~, wherein the first request ~~is~~comprises a ~~network~~TCP packet to open a connection.

97. **(Canceled)**

98. **(Currently Amended)** The system of Claim 87, wherein the one or more processors are further configured to store the first request to access the network resource.

99. **(Previously Presented)** The system of Claim 87, wherein the portable communication device communicates with the network communications interface via a network.

100. **(Currently Amended)** The ~~system~~method of Claim 77, wherein ~~redirecting~~further ~~comprises~~comprising ~~storing~~ the request to access the network resource.

101. **(Currently Amended)** The ~~system~~method of Claim 77, wherein receiving, from a portable communication device, a first request to access a network resource comprises receiving, from a portable communication device via a network, a request to access a network resource.

102. **(New)** The method of Claim 56, wherein the portable communication device is redirected to the authentication system by further storing the request to access the network resource.

103. **(New)** The method of Claim 56, wherein the portable communication device is redirected to the authentication system by further communicating request data to the redirection server, the request data being based on the first request.

104. **(New)** The method of Claim 56, wherein determining whether to provide the portable communication device with access to the network resource comprises determining whether the portable communication device is authorized to access the requested network resource.

105. **(New)** The method of Claim 56, wherein the first request is configured with network settings that do not correspond to the network.

106. **(New)** The method of Claim 56, further comprising storing the first request to access a network resource.

107. **(New)** The method of Claim 56, further comprising communicating a modified request to a redirection server, the modified request being based upon the first request to access the network resource.

108. **(New)** The method of Claim 56, wherein the redirection data comprises a browser redirect message.

109. **(New)** The method of Claim 56, wherein the method is performed by single device.

110. **(New)** The method of Claim 56, wherein the method is performed by multiple devices in communication with each other.

111. **(New)** The method of Claim 56, wherein the network management system is a gateway device.

112. **(New)** The network management system of Claim 63, wherein the first request is configured with network settings that do not correspond to the network.

113. **(New)** The network management system of Claim 63, wherein the processor is further configured to store the first request to access the network resource.

114. **(New)** The network management system of Claim 63, wherein the processor is further configured to communicate a modified request to the redirection

server, the modified request being based upon the first request to access the network resource.

115. **(New)** The network management system of Claim 63, wherein the redirection data comprises a browser redirect message.

116. **(New)** The network management system of Claim 63, wherein the processor is further configured to determine whether the portable communication device is authorized to access the network resource.

117. **(New)** The network management system of Claim 63, wherein the network management system is a gateway device.

118. **(New)** The method of Claim 77, wherein the determination of whether to provide the portable communication device with access to the network resource is based at least in part on a port.

119. **(New)** The method of Claim 77, wherein the determination of whether to provide the portable communication device with access to the network resource is based at least in part on a circuit ID.

120. **(New)** The method of Claim 77, wherein the determination of whether to provide the portable communication device with access to the network resource is based at least in part on a VLAN ID.

121. **(New)** The method of Claim 77, wherein the determination of whether to provide the portable communication device with access to the network resource is based at least in part on a MAC address.

122. **(New)** The method of Claim 77, further comprising communicating request-related data to a redirection server, the request-related data being based on the first request to access the network resource.

123. **(New)** The method of Claim 77, wherein the resource identification data is a URL.

124. **(New)** The method of Claim 77, wherein the resource identification data is a network address.

125. **(New)** The method of Claim 77, wherein the step of determining whether to provide the portable communication device with access to the network resource precedes the step of receiving the redirection data.

126. **(New)** The method of Claim 77, wherein determining whether to provide the portable communication device with access to the network resource comprises determining whether the portable communication device is authorized to access the requested network resource.

127. **(New)** The method of Claim 130, further comprising redirecting, upon determining that the portable communication device is not authorized to access the requested network resource, the portable communication device to an authentication system.

128. **(New)** The method of Claim 77, further comprising communicating a modified request to a redirection server, the modified request being based upon the request to access the network resource.

129. **(New)** The method of Claim 77, wherein the redirection data comprises a browser redirect message.

130. **(New)** The method of Claim 77, wherein the method is performed by single device.

131. **(New)** The method of Claim 77, wherein the method is performed by multiple devices in communication with each other.

132. **(New)** The method of Claim 77, wherein the network management system is a gateway device.

133. **(New)** The network management system of Claim 87, wherein the one or more processors are configured to determine whether to allow the portable communication device to access the requested network resource based at least in part on a port.

134. **(New)** The network management system of Claim 87, wherein the one or more processors are configured to determine whether to allow the portable communication device to access the requested network resource based at least in part on a circuit ID.

135. **(New)** The network management system of Claim 87, wherein the one or more processors are configured to determine whether to allow the portable communication device to access the requested network resource based at least in part on a VLAN ID.

136. **(New)** The network management system of Claim 87, wherein the one or more processors are configured to determine whether to provide the portable communication device with access to the requested network is based at least in part on a MAC address.

137. **(New)** The network management system of Claim 87, wherein the one or more processors are further configured to communicate request-related to a redirection server, the request-related data being based on the first request to access the network resource.

138. **(New)** The network management system of Claim 87, wherein the resource identification data is a URL.

139. **(New)** The network management system of Claim 87, wherein the resource identification data is a network address.

140. **(New)** The network management system of Claim 87, wherein the one or more processors are further configured to determine whether to provide the portable communication device with access to the network resource prior to receiving the redirection data.

141. **(New)** The network management system of Claim 87, wherein the one or more processors are further configured to determine whether the portable communication device is authorized to access the network resource.

142. **(New)** The network management system of Claim 87, wherein the one or more processor are further configured to redirect upon determining that the portable communication device is not authorized to access the requested network resource.

143. **(New)** The network management system of Claim 87, wherein the one or more processors are further configured to communicate a modified request to a redirection server, the modified request being based upon the request to access the network resource.

144. **(New)** The network management system of Claim 87, wherein the redirection data comprises a browser redirect message.

145. **(New)** The network management system of Claim 87, wherein the one or more processors are comprised in the same housing.

Application No.: 09/458,602
Filing Date: December 8, 1999

146. **(New)** The network management system of Claim 87, wherein the one or more processors are comprised in the separate housings.

147. **(New)** The network management of Claim 87, wherein the network management system is a gateway device.